

ECHEMPORTAL — THE GLOBAL PORTAL TO INFORMATION ON CHEMICAL SUBSTANCES

30-jähriges Bestehen des Informationssystems Gefährliche Stoffe (IGS) 05.11.2019, Duisburg





- OECD and the eChemPortal project
- eChemPortal
- OECD common electronic data format
- Conclusion



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)



Organisation for Economic Co-operation and Development (OECD) members and Partners



Australia

Austria

Belgium

Canada

Chile

Czech Republic

Denmark

Estonia

Finland

France

Germany

Greece

Hungary

Iceland

Ireland

Israel

Italy

Japan

Korea

Latvia

Lithuania

Luxembourg

Mexico

Netherlands

New Zealand

Norway

Poland

Portugal

Slovak Republic

Slovenia

Spain

Sweden

Switzerland

Turkey

United Kingdom

United States

EC

• IGOs

 Non-member economies

Industry

Trade Unions

Environmental NGOs

Animal Welfare NGOs



OECD - Environment, Health and Safety Programme

- Aims are to protect health and the environment, while:
 - Avoiding duplication of effort
 - Ensuring that efficiencies are made
 - Barriers to trade avoided
- Work together to develop and implement high-quality chemicals management policies and instruments
- Support capacity building for the sound management of chemicals globally

Areas of work

- Chemicals
- Nanomaterials
- Pesticides
- Biocides
- Chemical Accidents
- Pollutant Release and Transfer Registers
- Biosafety





The eChemPortal project of the OECD

- A key tool for finding information to support health and environment decisions concerning chemicals for all stakeholders regardless of geography or purpose
- Contribution to the Strategic Approach to International Chemicals Management (SAICM)
- Effort of the OECD with contribution from stakeholders and developed in collaboration with the European Chemicals Agency



ECHEMPORTAL

WWW.ECHEMPORTAL.ORG

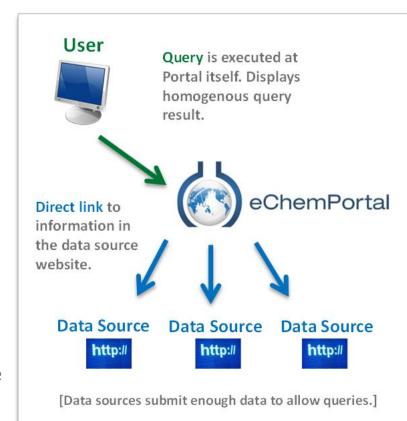


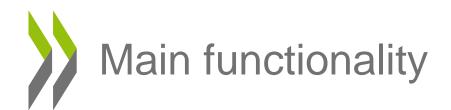
Free easy access to information of regulatory relevance on chemicals

- Prepared for government chemical programmes
- Property information
 (e.g. hazard & risk assessments, test data)
 - Physical Chemical Properties
 - Environmental Fate and Behaviour
 - Ecotoxicity
 - Toxicity
- Exposure and use information
- National classification results according to the GHS

<u>Focus</u>

- Existing industrial chemicals
- New industrial chemicals
- Pesticides
- Biocides





• Searches by:

- Substance ID
- Property & effects
- GHS classification*
- Combination of searches:
 - Substance ID + property & effects criteria
 - Substance ID + GHS classification



Participating data sources

- All 34 data sources participate in substance search
 - Australia, Canada, Finland, France, Germany, Japan, New Zealand, UK, USA, EU, IOs
- 4 data sources in property data search
 - Canada (CCR); Japan (J-CHECK); EU (ECHA CHEM); OECD (OECD SIDS IUCLID)
- 2 data sources in GHS classification search
 - Japan (GHS-J); EU (ECHA C&L inventory [harmonised classifications])
- The number of data sources participating in eChemPortal is continuously increasing



Participating data sources

- ACTOR U.S. EPA Aggregated Computational Toxicology Resource
- AGRITOX Base de données sur les substances actives phytopharmaceutiques
- APVMA-CR The Australian Pesticides and Veterinary Medicines Authority database of completed chemical reviews
- CCR Canadian Categorization Results
- CESAR Canada's Existing Substances Assessment Repository
- Combined Exposures Collection of Case Studies on Risk Assessments of Combined Exposures to Multiple Chemicals
- ECHA C&L inventory Public Classification and Labelling (C&L) Inventory according to the European Union (EU) CLP Regulation (EC) No 1272/2008
- ECHA CHEM European Chemicals Agency's Dissemination portal with information on chemical substances registered under REACH
- EFSA Open Food Tox Chemical Hazards Database of the European Food Safety Authority
- EnviChem Data Bank of Environmental Properties of Chemicals
- EPA HHBP EPA Human Health Benchmarks for Pesticides
- EPA OPPALB EPA Office of Pesticide Programs' Aquatic Life Benchmarks
- GDL Gefahrstoffdatenbank der Länder (Germany)
- · GHS-J -GHS Classification Results by the Japanese Government
- GSBL Joint Substance Data Pool of the German Federal Government and the German Federal States
- HPVIS High Production Volume Information System
- HSDB Hazardous Substance Data Bank

- HSNO CCID New Zealand Hazardous Substances and New Organisms Chemical Classification Information Database
- IGS Public Informationssystem f
 ür gefährliche Stoffe (Germany)
- INCHEM Chemical Safety Information from Intergovernmental Organizations
- INERIS-PSC INERIS-Portail Substances Chimiques
- IPCheM The Information Platform for Chemical Monitoring
- J-CHECK -Japan CHEmicals Collaborative Knowledge database
- JECDB Japan Existing Chemical Data Base
- NICNAS Other Australian National Industrial Chemicals Notification and Assessment Scheme assessments of existing chemicals other than Priority Existing Chemical assessments
- NICNAS PEC Priority Existing Chemical Assessment Reports
- NICNAS IMAP Inventory Multi-tiered Assessment and Prioritisation database
- OECD HPV Organisation for Economic Cooperation and Development Existing Chemicals Database
- OECD SIDS IUCLID OECD Existing Chemicals Screening Information Data Sets (SIDS) Database
- SIDS UNEP OECD Initial Assessment Reports for HPV Chemicals including Screening Information Data Sets (SIDS) as maintained by UNEP Chemicals
- SPIN Substances in Preparations In the Nordic countries
- UK CCRMP Outputs -UK Coordinated Chemicals Risk Management Programme Publications
- US EPA IRIS United States Environmental Protection Agency Integrated Risk Information System
- US EPA SRS United States Environmental Protection Agency Substance Registry Services



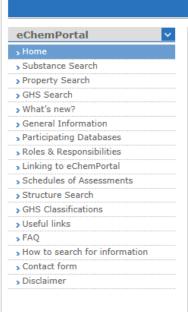
Home page (www.oecd.org/ehs/echemportal)



English 🗸

The Global Portal to Information on Chemical Substances





Chemical Substance
Search

Chemical Property
Data Search

GHS Search

Thirty four data sources participate under Chemical Substance Search.

Four data sources participate under Chemical Property Data Search.

Two data sources participate under the GHS Search, eleven data sources have GHS classifications information.

The list of data sources participating in eChemPortal is continuously expanding.

eChemPortal provides free public access to information on properties of chemicals:

- Physical Chemical Properties
- Ecotoxicity
- · Environmental Fate and Behaviour
- Toxicity

eChemPortal allows simultaneous searching of reports and datasets by chemical name and number, by chemical property, and by GHS classification. Direct links to collections of chemical hazard and risk information prepared for government chemical review programmes at national, regional and international levels are obtained. Classification results according to national/regional hazard classification schemes or to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) are provided when available. In addition, eChemPortal provides also exposure and use information on chemicals.

Latest news

NICNAS Inventory Multi-tiered Assessment and Prioritisation (IMAP) now linked to eChemPortal

20 November 2017

Search performance improved.

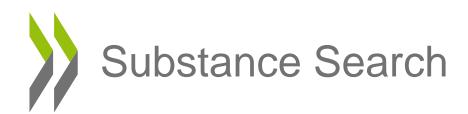
28 September 2017

Links to OECD SIDS IUCLID are temporarily down

11 September 2017

Information Platform for Chemical Monitoring (IPCHEM) database now linked to eChemPortal

24 July 2017



The Global Portal to Information on Chemical Substances





Substance Search

Number:	Filter by type of information		
	Type: (?)	Databases:	
	☐ Property information	✓ ACToR	AGRITOX
CAS, EC, IUBMB, MITI, UN or NA Number.	Exposure and use information	✓ APVMA-CR	☐ CCR
Example: 108-88-3 for a CAS Number.	GHS classifications	✓ CESAR	☐ Combined Exposures
Make sure you include the number separators. Do not search on partial Num	Select All Deselect All	☐ ECHA C&L inventory	✓ ECHA CHEM
	Select one or more of the types of information for your search.	✓ ECHA REACH	☑ EFSA Open Food Tox
Chamical name or sympanymy		☐ EnviChem	□ ЕРА ННВР
Chemical name or synonym:		☐ EPA OPPALB	✓ GDL
Dibromine		☐ GHS-J	✓ GSBL
		☐ HPVIS	✓ HSDB
Example: Use gluta* to find Glutamic acid, use *chloro* to find dichlorobenz		☐ HSNO CCID	✓ IGS
To search for * as character (non wildcard use) use ** instead.		☐ INCHEM	☐ INERIS-PSC
		✓ IPCHEM	☐ J-CHECK
		☐ JECDB	✓ NICNAS IMAP
Filter by type of information		✓ NICNAS Other	✓ NICNAS PEC
		✓ OECD HPV	OECD SIDS IUCLID
Search Reset		✓ SIDS UNEP	✓ SPIN
		✓ UK CCRMP Outputs	☐ US EPA IRIS
		☐ US EPA SRS	
		Select All Deselect All Select one or more of the partici	ipating databases for your search.

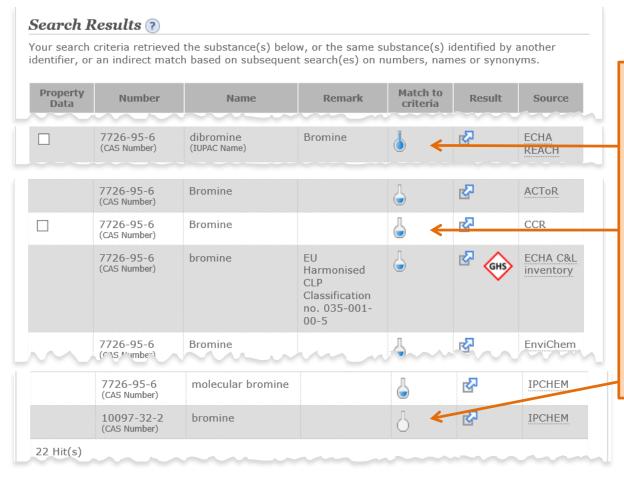
Search by

- Reference Number CAS, EC, IUBMB, MITI, UN, NA
- Chemical name or synonym
 Wildcards: *methly*
 Different characters: 四塩化炭素
- Query URLs

Filter to data sources which contain specific types of information.



Substance search results



Broad search offers as many links to chemical information as possible.

In the first level of results, search criteria match data submitted by data source.

Results that do not directly match search criteria but may be of potential interest.



Substance search – link to data source

Search Results ?

Your search criteria retrieved the substance(s) below, or the same substance(s) identified by another identifier, or an indirect match based on subsequent search(es) on numbers, names or synonyms.

Property Data	Number	Name	Remark	Match to criteria	Result	Source
	7726-95-6 (CAS Number)	Bromine		<u>_</u>	₹	EnviChem

Go directly to full information in local data source

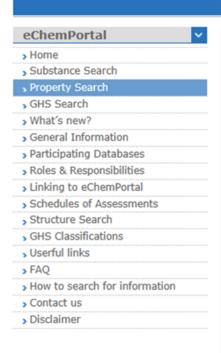


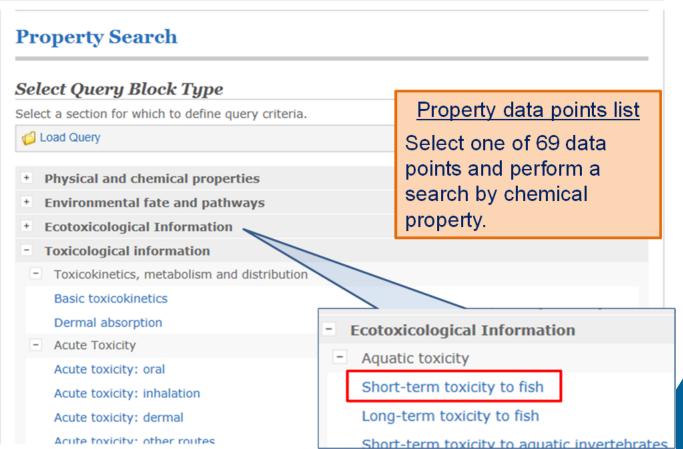
Data bank of environmental chemicals, the Finnish Environment Institute (SYKE), screenshot 8 October 2019



The Global Portal to Information on Chemical Substances

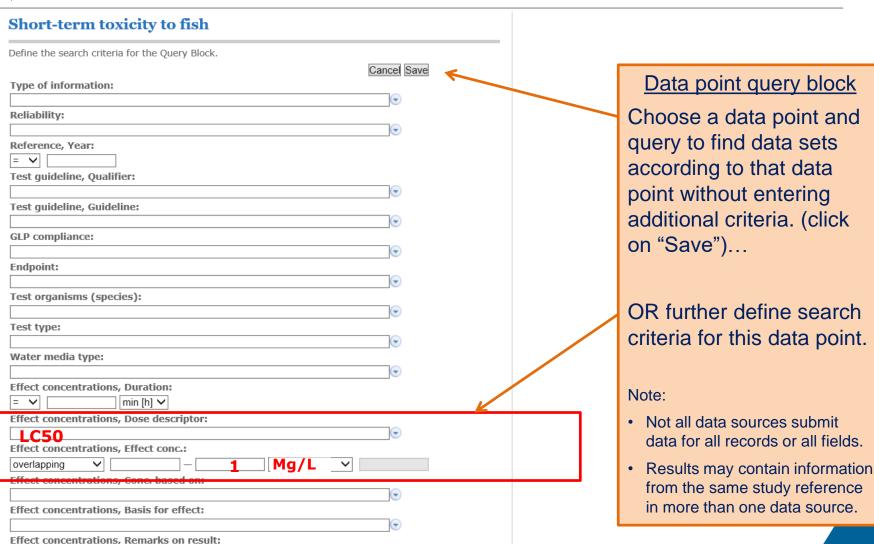








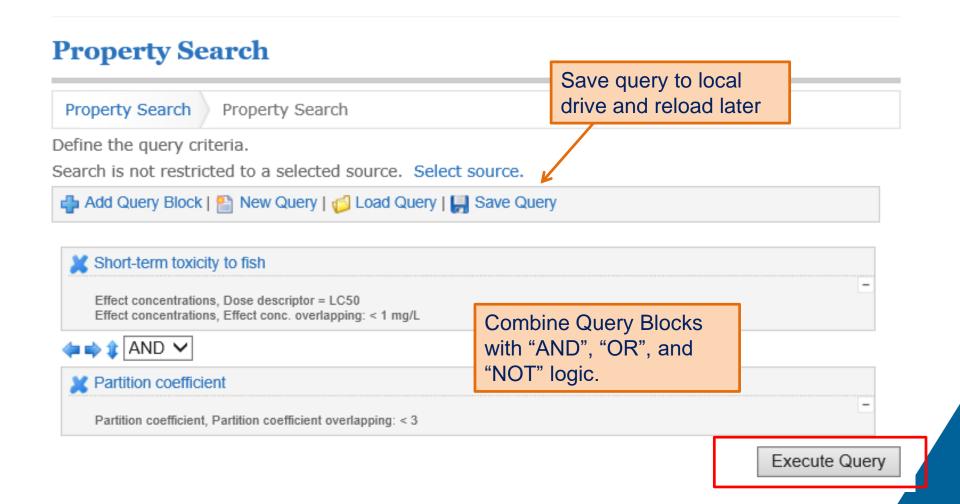
Property search - criteria entry screen



Cancel Save



Property search - criteria





Property search - result

Property Search Result

Back to Property Search Results 1 - 10 of 4164 (limited result) 1 2 3 4 5 6 7 8 9 10 Next Substance Results Source (1R)-1-[(4R,4aR,8aS)-2,6-bis(4-methylphenyl) Partition coefficient 🔣 ECHA CHEM -hexahydro-[1,3]dioxino[5,4-d][1,3]dioxin-4-yl] Partition coefficient, ethane-1.2-diol Partition coefficient: 2.51 (IUPAC Name) Member of Category: no View Dataset... Partition coefficient 🔣 ECHA CHEM (1R)-1-[(4R,4aR,8aS)-2,6-bis(4-methylphenyl) -hexahydro-[1,3]dioxino[5,4-d][1,3]dioxin-4-yl] Partition coefficient, ethane-1.2-diol Partition coefficient: 2.7 (IUPAC Name) Member of Category: no View Dataset... (2,3-dihydroxypropyl)(3-docosanamidopropyl) Partition coefficient 🐶 ECHA CHEM dimethylazanium chloride Partition coefficient. (IUPAC Name) Partition coefficient: ca. 0 136920-10-0 (CAS Number) Member of Category: no View Dataset... (1R)-1-[(4R,4aR,8aS)-2,6-bis(4-methylphenyl) Partition coefficient 🕏 ECHA CHEM -hexahydro-[1,3]dioxino[5,4-d][1,3]dioxin-4-vl] Partition coefficient, ethane-1,2-diol Partition coefficient: 2.5 (IUPAC Name) Member of Category: no View Dataset... (1,3-benzothiazol-2-ylsulfanyl)(tert-butyl)amine Partition coefficient 🚱 ECHA CHEM (IUPAC Name) Partition coefficient, 95-31-8 Partition coefficient: 2.56 (CAS Number) Member of Category: no View Dataset... (1R)-1-[(4R,4aR,8aS)-2,6-bis(4-methylphenyl) Short-term toxicity to fish ECHA CHEM ξ'n -hexahydro-[1,3]dioxino[5,4-d][1,3]dioxin-4-yl] ethane-1,2-diol Effect concentrations, Dose (IUPAC Name) descriptor: LC50 Member of Category: no Effect concentrations, View Dataset... Effect conc.: > 0.7 mg/L

Download query results

- Search results matching search criteria and
- direct link to full data set in local data source



Combined searches

Substance
ID and
property &
effects

Search this substance dataset with property or effects criteria

Check	Number	Name	Remark	Level	Result	Source
	142-96-1 (CAS Number)	Dibutylether (Unknown)		&	&	IGS
	142-96-1 (CAS Number)	Butane, 1,1'- oxybis- (Unknown)		(&	US EPA SRS
	142-96-1 (CAS Number)	Butyl ether (Unknown)		&		ACToR
	142-96-1 (CAS Number)	Butane, 1,1'- oxybis- (Unknown)		Ġ	E	OECD HPV
\checkmark	142-96-1 (CAS Number)	1,1'-oxydibutane (IUPAC Name)	dibutyl ether (IUC4 DSN 142)	\bigsig	€ 7	OECD SIDS IUCLID
Ø	142-96-1 (CAS Number)	Butane, 1,1'- oxybis- (Unknown)		6	E	J-CHECK
Z	142-96-1 (CAS Number)	1,1'-oxydibutane (IUPAC Name)	dibutyl ether	\bar{\bar{\bar{\bar{\bar{\bar{\bar{	ਔ	ECHA CHEM
	142-96-1 (CAS Number)	Butane, 1,1'- oxybis- (Unknown)		Ġ	₽	SPIN
₹	142-96-1 (CAS Number)	Butane, 1,1 -oxybis- (Unknown)		&	ক্র	CCR
	142-96-1 (CAS Number)	1,1'-Oxybisbutan (Unknown)		\(\begin{array}{c} \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 	₽	GSBL
	142-96-1 (CAS Number)	di-n-butyl ether; dibutyl ether (Unknown)		\(\begin{array}{c} \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 	Ğ GHS €	GHS-J
	142-96-1 (CAS Number)	Butyl ether, n- (Unknown)		a	곲	INCHEM
	142-96-1 (CAS Number)	di-n-butyl ether (Unknown)	EU Harmonised CLP Classification no. 603-054- 00-9	&	€A GHS	ECHA C&L inventory

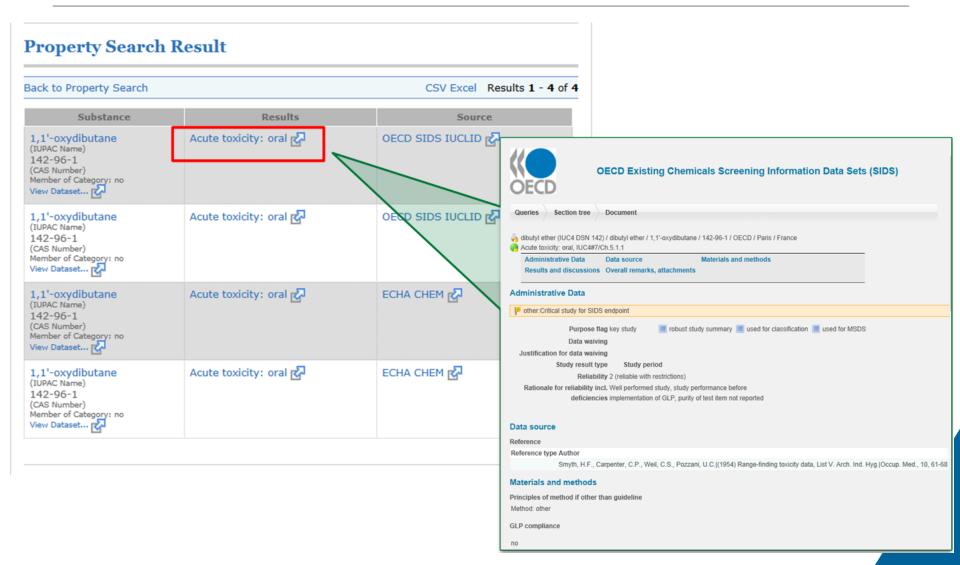
View reviewed GHS classification for this substance

Select All Deselect All

Continue with Property Search

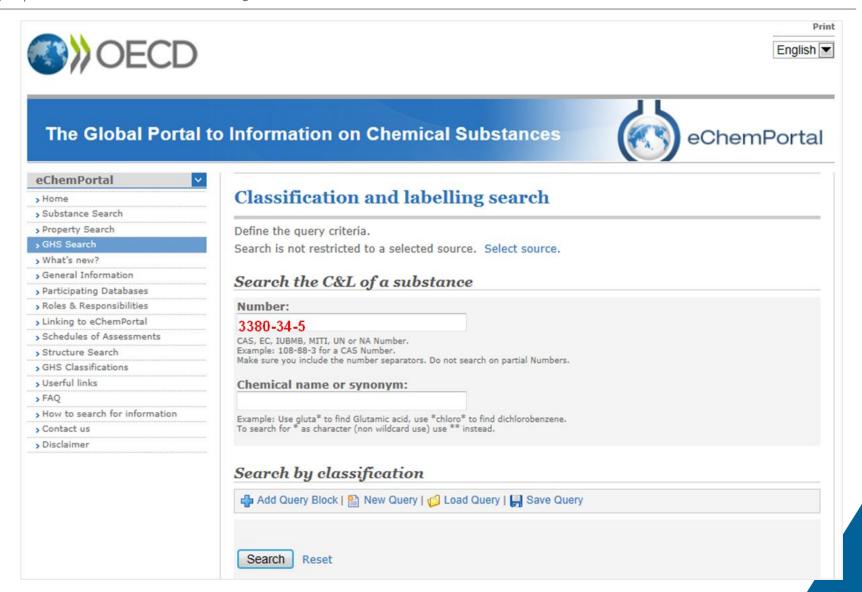


Combined searches: Substance ID and property & effects





GHS classification and labelling search: Search by substance





GHS classification search – final results

In a glance, view the classifications reviewed by a regulatory body or similar international organisation for a specific substance and...

Go directly to full information in local data source

The second table contains links to where other classification information may be found (unstructured data, un-reviewed...)

Query Result - Reviewed / harmonised classification and labelling

Ways to proceed

 You can click a link in the "Result" column to see the substance in the participants database, including information like specific concentration limits and M-Factors when available.

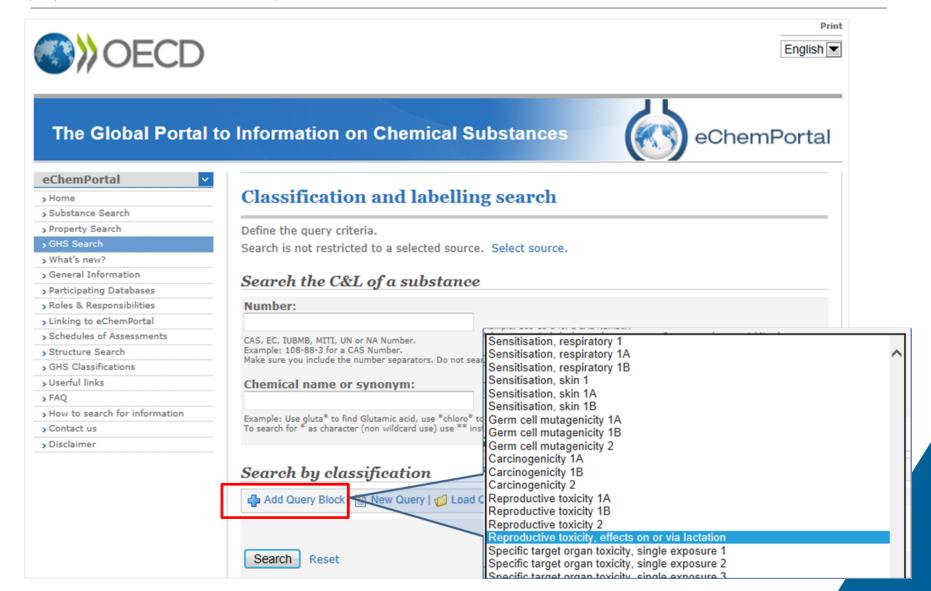
Name	Number	Classification	Labelling	Result	Source
triclosan (Unknown)	3380-34-5 (CAS Number) 604-070-00-9	Skin Irrit. 2 Eye Irrit. 2 Aquatic Acute 1 Aquatic Chronic 1	Warning	&	ECHA C&L inventory
triclosan; 2,4,4'- trichloro-2'- hydroxy- diphenyl- ether; 5- chloro-2-(2,4- dichloropheno xy)phenol (Unknown)	3380-34-5 (CAS Number)	Aquatic Acute 1 Aquatic Chronic 1 (Form:solid)	Warning	₽.	GHS-J

Other classification and labelling information

Number	Name	Remark	Level	Result	Source
3380-34-5 (CAS Number)	Triclosan (Unknown)		<u></u>	&	GDL
3380-34-5 (CAS Number)	Triclosan (Unknown)		<u></u>	፟፟፟፟፟	GSBL
3380-34-5	Triclosan		4		HSNO CCID

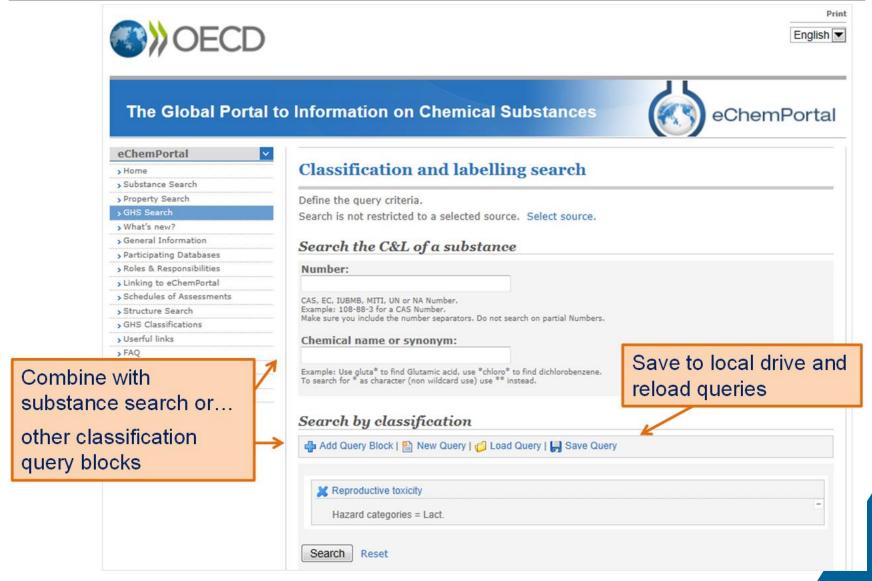


GHS classification and labelling search: Search by classification



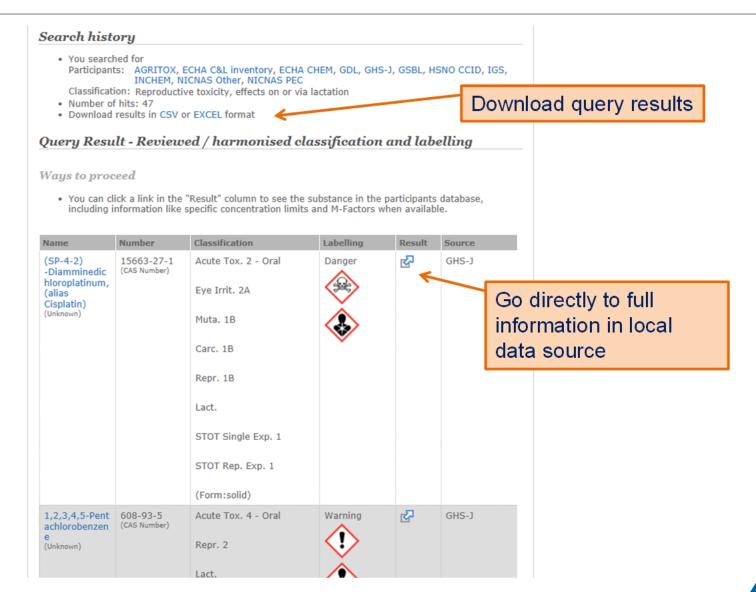


GHS classification search - criteria entry screen – by classification





GHS classification search - criteria entry screen – results





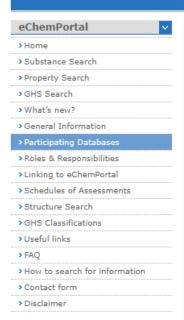
Participating data source descriptions



Print English ▼

The Global Portal to Information on Chemical Substances





Participating Databases

Participating Databases

IGS-Public Informationssystem für gefährliche Stoffe (Germany) 📈

Type of information:

- Risk assessments
- Hazard assessments
- Exposure assessments
- GHS classifications
- Pesticides
- Biocides
- Industrial chemicals

General information:

IGS provides public access to a variety of information on chemical and microbiological substances mostly in German. The software interface is switchable between English and German. The focus is on regulatory information reflecting German and European, as well as Swiss, US and selected other legislation and assessments. Beside this, information on substance data and emergencyy procedures is available. The database is designed for the use by officials and employers, but also for the general public.

Disclaimer for Information available in IGS

This website is maintained to enhance public access to information on hazardous substances. The information is of a general nature and is intended for guidance only. Whilst the information is provided in

Descriptions of participating data sources contain information on review data has undergone



eChemPortal – main points

- Searches data from multiple sources simultaneously
- Identifies relevant information
- Provides direct **free** access to information
- Describes the **type of review** the data have undergone
- Allows a broad search on substance identification (including synonyms, trade names, in different languages)
- Receives and stores property and effects data in format based on common electronic data formats for reporting chemical test summaries - OECD Harmonised Templates for Reporting Chemical Test Summaries



OECD COMMON ELECTRONIC DATA FORMAT



Data format compatible with OHTs

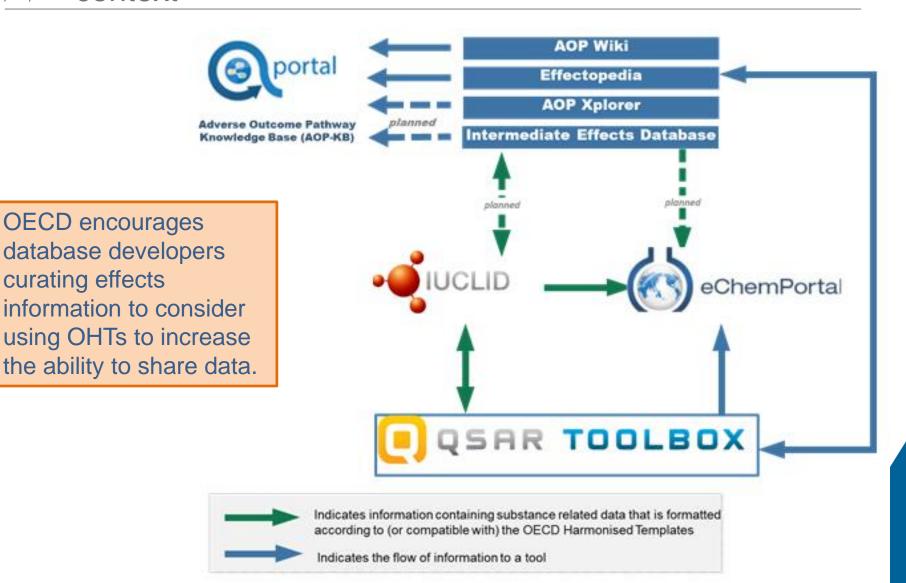
 eChemPortal receives and stores property & effect search data in established eChemPortal XML format based on elements of a common electronic data format

OECD Harmonised Templates for Reporting Chemical Test Summaries (OHTs)

- international standard
- for reporting summaries of tests (studies) performed on chemicals
- tests performed according to the OECD Test Guidelines as well as other procedures (national guidelines: EPA..., EU methods, ISO stds...)
- to determine their properties or effects on human health and the environment.
- each template has corresponding XML schema
- www.oecd.org/ehs/templates



OECD promotes the interlinkage of tools developed to support chemical management in a regulatory context





CONCLUSION



eChemPortal – the future

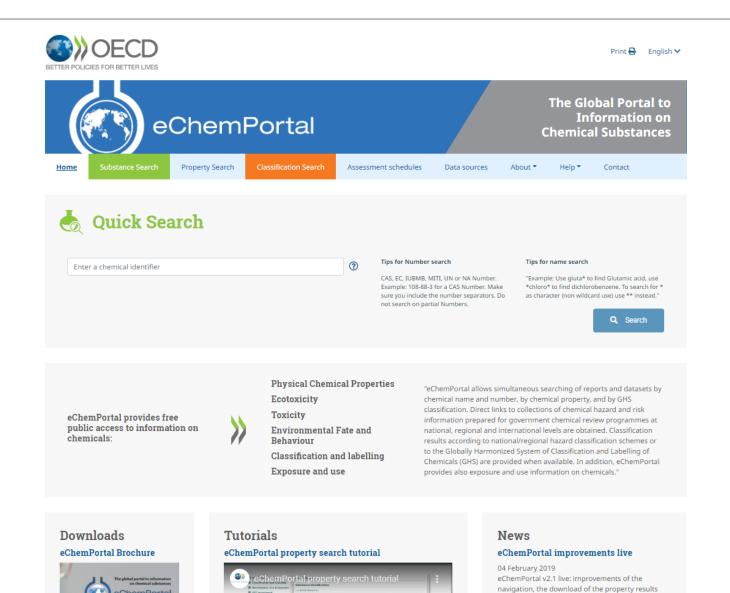
- Expand participation
- Improve search efficiency
- Continue investigating how eChemPortal can best support
 - effective chemicals management globally and
 - the public's right to know about the hazards, exposures and potential risks of chemicals

Contact us: echemportal@oecd.org





New User interface coming soon!





THANK YOU

Valerie.frison@oecd.org

Environment, Health & Safety Division
Environment Directorate
Organisation for Economic Co-operation and Development (OECD)

